

CHERRY CREEK BASIN WATER QUALITY AUTHORITY
2023 Capital Project Status Report
December 28, 2023

RESERVOIR PROJECTS

1. East Shade Shelters Phase III and Tower Loop Phase II Shoreline Stabilization (CCB-17.5.1 and CCB-17.7)
 - a. Description: These projects were identified in 2014 through the annual inspection. The Tower Loop Phase II connects to the Phase I project and extends shoreline protection 570 feet to the southeast towards Dixon Grove. The East Shade Shelters Phase III starts on the north end of the Shade Structure and goes 400-feet to the south.
 - b. Status: Consultant selection is scheduled for the 1st quarter. A consultant selection committee will be set in February (1/29/21). At the February TAC meeting Jason Trujillo, Jon Erickson, Lanae Raymond, Bill Ruzzo were interested in serving on the consultant selection committee (2/11/21). This selection committee was discussed at the 3/18/21 Board Meeting, and no further members were added. The Request for Proposals (RFP) has been posted on BidNet and Proposals are due 04/21/21 (3/25/21). The pre-proposal meeting was held on 4/7/21. 5 proposals were received on 4/28/21; the selection committee is reviewing them. Interviews were held and a selection is being brought to the May Board meeting (5/14/21). Board authorized negotiations with RESPEC (5/27/21). Agreement has been executed with RESPEC (10/15/21). Field Survey of project areas and topographic mapping is underway (12/30/21). A design kickoff meeting was held on 4/22/22. A design sprint workshop was held on 7/12/22 which included a site visit and evaluation of alternatives. RESPEC is developing a recommended alternative (9/8/22). RESPEC provided updated project costs for budgeting (10/13/22). The 30% submittal was received on 11/16/22 and is under review. CCBWQA provided comments on 30% review on 1/17/23; a value engineering effort is recommended as the project costs exceed the budget. The value engineering meeting was held on 2/24/23. RESPEC's request for additional services was approved by TAC and Board in May (5/25/23). The reservoir water level has come down since the May and June storms and additional erosion was observed on 7/14/23; a site visit was made with RESPEC on 8/1/23 and the erosion areas at East Shade Shelters were measured. It has been estimated that roughly 14 cubic yards of soil was eroded from the 2023 storms (9/15/23). A progress meeting was held on 9/15/23, RESPEC will refine the breakout of components between recreational (CPW responsibility), water quality (CCBWQA responsibility), and shared (both CPW and CCBWQA responsibilities) costs and work on 408 review submittal to US Army Corps of Engineers. RESPEC was provided the US Army Corps of Engineers' guidance on cut and fill and asked to prioritize the 408 application and review; they are coordinating with Gene Seagle in preparation for this submittal (12/1/23).
 - c. Next steps and schedule for 2024:
 - Lead Agency – CCBWQA
 - Partners - CPW
 - East Shade Shelters Phase III –
 1. In 1st and 2nd quarters, RESPEC completes the final design and bid package of East Shade Shelters. PAMP to attend design progress meetings and coordinate with Technical Manager, Executive Committee, TAC, and Board as needed.

2. In 1st quarter, RESPEC/Corvus prepares and submits 404 permit application to USACOE. 404 permit is needed before construction.
3. In 1st quarter, RESPEC/Corvus to prepares 408 submittal. PAMP assists RESPEC with coordination of USACOE cut and fill requirements and clarification (on-going with Gene Seagle). PAMP prepares 408 project summary letter on behalf of CCBWQA to USACOE and CPW. PAMP coordinates 408 support letter from CPW (Michelle Seubert) for the project. 408 approval is needed before construction.
4. In 2nd quarter, PAMP seeks consensus from CPW and CCBWQA that the project will fall under existing agreement and amendment between parties Pollution Abatement Projects/Pollution Reduction Facilities.
5. In 2nd quarter, PAMP finalizes partner participation/breakdown and begins IGA preparation and coordination. CCBWQA's construction funding is budgeted for 2024 (see row 11 of 10-year CIP). Construction requires funding from CPW for the park amenities (including additional staircase already agreed to by CPW and other amenities still being negotiated).
6. In 3rd quarter of 2024, PAMP works with CCBWQA staff to finalize IGA and takes it to TAC and Board for authorization.
7. In 3rd quarter of 2024, PAMP requests proposal from RESPEC for engineering services during construction and reviews it. PAMP works with CCBWQA staff to prepare corresponding agreement and takes it to TAC and Board for authorization.
8. In 3rd quarter, PAMP coordinates with CCBWQA staff and prepares Action Item Memo for TAC and Board authorization for construction, and coordinates with CCBWQA's Administrative Manager on the public bid of project.
9. In 4th quarter, PAMP assists CCBWQA in administration of construction and attends construction progress meeting, with RESPEC doing the day-to-day effort at the construction site.

Tower Loop Phase II –

1. In 1st and 2nd quarters, PAMP receives design submittal that includes revisions from value engineering effort. Final design and construction are currently scheduled for 2032 and 2033 (see row 12 of 10-year CIP).

STREAM RECLAMATION PROJECTS

1. Cherry Creek Stream Reclamation at Arapahoe Rd. - Valley Country Club to Soccer Fields, Reaches 3 to 4 (CCB-5.14C)
 - a. Description: This project continues the work on Cherry Creek by CCBWQA, MHFD, and local partners. It ties into the previous stream reclamation projects of Cherry Creek Eco Park to Soccer Fields (CCB-5.14A) and Cherry Creek at Valley Country Club (CCB-5.14B). The 5,167 Linear Feet of stream reclamation reduces bed and bank erosion immobilizing approximately 88 pounds of phosphorus annually. The project is anticipated to be funded over several years and likely be broken into phases.
 - b. Status: In 2021, and IGA was executed between CCBWQA, MHFD, City of Aurora, and SEMSWA to begin this work. IGA Amendment that brings in 2022 funding is under review (5/13/22). Board authorized IGA Amendment for 2022 funding on 7/21/22 (8/12/22). IGA Amendment has been revised to show Aurora's lower participation; CCBWQA's participation was lowered accordingly to meet 25% partner project level; revised IGA Amendment received TAC recommendation and is being

taken to Board for their consideration in October (10/13/22). Board authorized the IGA Amendment for 2022 funding at their 10/22/22 meeting. It appears that CCBWQA's 2023 participation will be reduced as a result of less partner funding available for this project (2/24/23). The IGA Amendment that brings in 2023 funding was recommended by the TAC and authorized by the Board at their June meetings (6/29/23). MHFD is starting consultant selection process (10/13/23). Jacobs, Olsson, and Muller were shortlisted for interviews which are scheduled for mid-December (11/10/23). *Muller was selected as the consultant (12/28/23).*

c. Next steps and schedule for 2024:

Lead Agency – MHFD

Partners – CCBWQA, Aurora, and SEMSWA

Stakeholders/Potential Funding – Arapahoe County Open Space and CWCB

1. In 1st quarter, PAMP works with Technical Manager (Jane is assisting with coverage of this effort during gap between PAMPs) to review Muller's scope of work and fee and they coordinate CCBWQA's acknowledgment of this agreement.
 2. In 1st and 2nd quarters, Muller to works on alternatives and provides initial project cost estimate to incorporate in to CCBWA's and partners' CIPs/budgets. PAMP attends design progress meetings, advocates for CCBWQA interests, and coordinates with Technical Manager, Executive Committee, TAC, and Board as-needed.
 3. In 3rd quarter, PAMP coordinates IGA Amendment (MHFD prepares) to bring in 2024 funding (see row 16 of CIP), coordinates with CCBWQA staff, and takes it to TAC and Board for their authorization.
 4. In 3rd quarter, PAMP evaluates whether CWCB funding is needed for project. If so, discuss with CCBWQA staff and partners whether project is ripe to submit for CWCB grant by December 2024 deadline.
 5. All year, PAMP coordinates with Technical Manager and Arapahoe County Open Space, Jane Clary is attending the Dove Valley Working Group on January 11, 2024, get an update and coordinate on future meetings.
 6. All year, PAMP works with Muller and other partners on defining property acquisition and degerming permits/licenses needed for the project. PAMP works with partners to determine who will lead property acquisition effort and coordinates with Technical Manager, Executive Committee, TAC, and Board on eligibility of property acquisition for funding from CCBWQA under PRF Preservation (see row 29 of CIP).
2. Cherry Creek - Reservoir to Lake View Drive Alternatives Analysis and Development of Preferred Alternative (CCB-5.16A)
- a. Description: This project is in follow up to CCBWQA's study of Cherry and Piney Creeks in Cherry Creek State Park (CCSP). Muller completed two reports on Cherry Creek from Reservoir to State Park Boundary, Stream and Water Quality Assessment and Baseline Channel Monitoring Report, in 2022. These reports highlight the need for this project.
 - b. Status: A workshop is scheduled for the 3/16/23, to seek CCBWQA Board and TAC input on this project and Cherry and Piney Creeks in CCSP (3/10/23). *The follow up from workshop is underway – project overview and funding flyer has been created,* Muller is scoping the next step of design for Reach 1 and providing a fee, and multi-pronged approach is in development for workshop priority reaches that prioritizes Reach 1 and reduces risk from upstream reaches; these items will be

brought to TAC and Board for discussion, direction, and/or action at upcoming meetings (3/30/23). A site visit for partner outreach and funding was held on 5/25/23 at 1-4 pm (6/8/23). A coordination meeting was held with Aurora on 6/23/23 and they showed interest in partnering on the project to protect their water lines. The Mile High Flood District has provided their budget/CIP schedule and Arapahoe County Open Space has been contacted to investigate potential partnering opportunities (7/13/23). The TAC created a subcommittee for this project on 8/3/23; which will attend progress meetings, provide timely feedback to Muller, and to coordinate with TAC as needed. The alternatives analysis kickoff meeting was held on 8/29/23. A site visit was held on 9/22/23 to look at multiple flow paths and potential risks for consideration in alternatives analysis. *It was verbally reported at the 11/16/23 Board meeting that Colorado Parks and Wildlife's repair of Lake View Drive is underway which includes the alternatives of concrete pipe and trash racks, cleaning out of culverts 1-9 and the beaver debris, and it is scheduled for completion by mid-December. Muller was provided US Army Corps of Engineers' guidance on cut and fill for consideration in their alternatives analysis (12/1/23).*

c. Next steps and schedule for 2024:

Lead Agency – CCBWQA

Partners – CPW and Aurora (other possible partners are CWCB, USACOE, MHFD, Arapahoe County - Open Space for potential funding, and Arapahoe County - Public Works for MHFD funding request).

1. In 1st and 2nd quarters, Muller completes alternatives analysis which includes updated cost information in time for partners CIP/Budget cycles. PAMP assists Muller, attends progress meetings, reports and coordinates project through the alternatives analysis. CCBWQA has created a sub-committee for this work, PAMP coordinates and solicits sub-committee input at key milestones and critical decisions. Muller's alternatives analysis scope of work includes TAC and Board presentation, PAMP coordinates with Technical Manager and Executive Committee on logistics and content of presentation.
2. In 3rd quarter, PAMP coordinates authorization of optional task in Muller's agreement for selected alternative with Technical Manager and Executive Committee or proposes a revision to scope of work and fee based on findings from alternatives analysis (requires additional TAC and Board approval).
3. All year, PAMP coordinates with Technical Manager and Arapahoe County open space, Jane Clary is attending the Dove Valley Working Group on January 11, 2024, get an update and coordinate on future meetings.

3. Cherry Creek Stream Reclamation – Upstream of Scott Road (CCB-5.17)

- a. Description: Design and construction of stream reclamation is in partnership with Douglas County and MHFD. It improves 4,100 feet of Cherry Creek and is located upstream of Scott Road.
- b. Status: IGA was approved by the Board at their April 2020 meeting. Muller had been selected as consultant, and design scope of work is being prepared. Kickoff meeting was held on 12/11/20; a follow-up field visit will be scheduled for early 2021. Site visit was held on 1/29/21. Conceptual design is complete, negotiations are underway to contract for 60% design (4/8/21). Muller is working on alternatives (4/30/21). Muller is working on preliminary design and an IGA Amendment to bring in additional 2021 funding from Douglas County is being brought to the Board in

October (10/15/21); IGA Amendment has been executed (11/11/21). Muller is preparing 60% Design Submittal (1/28/22). Muller submitted 60% Design on 2/2/22; comments have been provided on 60% Design Submittal (3/10/22). IGA Amendment bringing in 2022 funding is scheduled for TAC and Board consideration in June (5/27/22). IGA Amendment was authorized at the June 16th Board Meeting (6/30/22). Muller is working on Final Design and held a progress meeting on 4/14/23, a site visit is being scheduled to support the 90% design submittal. The 90% site visit was held on 5/22/23. Muller submitted their 90% design submission on 9/14/23; the engineer's estimate confirms that additional funding is needed for construction. IGA Amendment for additional funding is scheduled for TAC and Board consideration at October meetings and 90% review meeting was held on 10/13/23. Comments were provided for 90% submittal and discussed at the review meeting (11/10/23).

c. Next steps and schedule for 2024:

Lead Agency – MHFD

Partners – CCBWQA and Douglas County

1. It is expected that the project was fully funded in 2023, so no additional funding was included in CCBWQA's CIP.
2. In 1st and 2nd quarters, Muller completes final design. PAMP reviews 100% submittal, advocates for CCBWQA's interests, and attends review meeting.
3. In 1st and 2nd quarters, Muller/ERO continue their work to obtain 404 permit for project, 404 permit is needed before construction. PAMP monitors 404 permit status, report, and adjust construction schedule as-needed.
4. In 3rd quarter, construction is anticipated to start. PAMP reviews construction and engineering support agreements (MHFD prepares), coordinates with CCBWQA staff, and works with Administrative Manager on CCBWQA's acknowledgement.
5. In 3rd and 4th quarters, PAMP provides construction assistance with other partners taking the lead on this work. PAMP attends the pre-construction meeting, progress meetings near 1/3 and 2/3 completion points, and final walk-through/punch list meeting. PAMP advocates for CCBWQA's interests and reports on progress accordingly.
6. Construction of this project will likely continue into 2025.

4. Cherry Creek Stream Reclamation at Dransfeldt (CCB-5.17.1B)

- a. Description: Design and construction of stream reclamation is in partnership with Town of Parker and MHFD. It improves 2,400 feet of Cherry Creek near the future location of Dransfeldt bridge which is just downstream of the Cherry Creek at KOA project.
- b. Status: Initial scoping has begun, and a partners meeting was held on 1/30/21. IGA is scheduled for CCBWQA's May TAC and Board meetings (4/30/21). IGA was approved by all parties and has been executed (6/25/21). Muller Engineering has submitted their Draft Scope of Work for Design Services, and the project sponsors have reviewed it (7/8/21). Design kickoff meeting was held on 10/14/21. Alternatives are being evaluated (12/9/21). Pre-submittal meeting for the 404 permit is being scheduled (12/30/21). CLOMR is being prepared for project (3/10/22) and was submitted to FEMA on 3/31/22. CEI was selected for as project partner to provide contractor input during the design (5/27/22). CLOMR is under review by FEMA (8/12/22). Muller has received comments on CLOMR and is preparing

- responses; 90% Submittal is scheduled for early February (1/27/23). Comments on 90% Submittal were provided on 2/22/23; project is experiencing substantive cost increases due to current market conditions (2/24/23). TAC at their 3/2/23 meeting recommended that the Board authorized the IGA Amendment to bring in 2023 funding along with an increase in CCBWQA's 2023 funding from \$170,000 to \$570,000. The Board authorized the IGA Amendment with the increased 2023 funding of \$570,000 at their 3/16/23 meeting. The Conditional Letter of Map Revision (CLOMR) was issued by the Federal Emergency Management Agency (FEMA) on April 28, 2023 (5/12/23). The sanitary sewer relocation will be contracted to start with, in order to avoid a pipe material cost increase, and to get it out of the way for the forthcoming stream reclamation (7/13/23). The sanitary sewer relocation has been contracted for with Concrete Express Inc. or CEI (8/11/23). Construction of stream reclamation will start once 404 permit has been received (11/10/23).
- c. Next steps and schedule for 2024:
- Lead Agency – MHFD
 - Partners – CCBWQA and Parker
 - 1. It is expected that the project was fully funded in 2023, so no additional funding was included in CCBWQA's CIP.
 - 2. Sanitary sewer relocation was completed first in anticipation that the stream reclamation to be done next.
 - 3. Parker is coordinating this project with their Dransfeldt bridge crossing of Cherry Creek project. PAPM monitors the construction interface between projects, reports on any impacts, and works with partners to adjust construction schedule of stream reclamation as-needed.
 - 4. In 1st quarter of 2024, PAMM to monitor 404 permit status, report, and adjust construction schedule of stream reclamation as needed.
 - 5. When construction can proceed, PAMM reviews construction and engineering support agreements (MHFD prepares), coordinates with CCBWQA staff, and works with Administrative Manager on CCBWQA's acknowledgement.
 - 6. When construction is underway, PAMM provides construction assistance with other partners taking the lead on this work. PAMM attends the pre-construction meeting, progress meetings near 1/3 and 2/3 completion points, and final walk-through/punch list meeting. PAMM advocates for CCBWQA's interests and reports on progress accordingly.
 - 7. When construction is completed, PAMM prepares Project Summary for inclusion in CCBWQA's 2024 Annual Report.
5. Piney Creek - Cherry Creek to Parker Road, Reaches 1 to 2 (SEMSWA) (CCB-6.5)
- a. Description: This project includes 2900 liner feet of stream reclamation on Piney Creek. The project partners are SEMSWA and CCBWQA.
 - b. Status: Project coordination meeting was held with SEMSWA on 6/29/22. IGA drafted and is being reviewed by SEMSWA (8/12/22). IGA was approved by CCBWQA at the 9/15/22 Board meeting. IGA Amendment to bring in 2023 funding was recommended by the TAC and authorized by the Board in May (5/25/23). CCBWQA sent the Draft IGA Amendment to SEMSWA for review on 6/29/23. SEMSWA has no comments on the IGA Amendment and plans to take it to their Board in October (8/11/23). The project site was walked with SEMSWA and Olsson and Associates on 8/30/23, Olsson is preparing their scope of work and fee for design. Comments on Olsson's scope of work and fee were provided to and coordinated with SEMSWA (11/10/23). *Olsson's scope of work and fee have been*

finalized and SEMSWA is planning on contracting for the initial design phase in early 2024 (12/1/23).

- c. Next steps and schedule for 2024:
 - Lead Agency – SEMSWA
 - Partners – CCBWQA
 - 1. In 1st quarter, SEMSWA prepares draft agreement for Olsson’s initial design phase. Olsson’s scope of work and fee have already been reviewed by CCBWQA and the Technical Manager was copied to facilitate transition between PAPMs. PAPM reviews agreement (prepared by SEMSWA) and coordinates CCBWQA’s acknowledgement.
 - 2. In 1st and 2nd quarters, Olsson provides alternative analysis and updated cost information in time for CCBWA’s and partners CIPs/budget cycles. PAPM to review, coordinate, and report on alternatives analysis.
 - 3. All year, PAPM attends design progress meetings, advocates for CCBWQA interests, and coordinates with Technical Manager, Executive Committee, TAC, and Board as-needed.
 - 4. In 2nd quarter, PAPM coordinates IGA or Amendment (CCBWQA prepares) to bring in 2024 funding (see row 19 of CIP) and takes it to TAC and Board for their authorization.
 - 5. Design and permitting of project will likely continue into 2025.

- 6. Piney Creek south of Orchard Rd., Reaches 4 to 5 (SEMSWA) (CCB-6.6)
 - a. Description:
 - b. Status:
 - c. Next steps and schedule for 2024:
 - Lead Agency – MHFD
 - Partners – SEMSWA and CCBWQA
 - 1. This is a new project for 2024.
 - 2. In 1st quarter, PAPM fills out description line above from information in the 10-year CIP. PAPM coordinates with MHFD and SEMSWA on project schedule and when to bring in 2024 funding.
 - 3. After the schedule is coordinated, PAPM coordinates IGA (MHFD prepares) to bring in 2024 funding (see row 20 of CIP) and takes it to TAC and Board for their authorization.
 - 4. After the schedule is coordinated, PAPM to work with partners on next steps for design.
 - 5. Funding and design of this project will likely continue into 2025.

- 7. McMurdo Gulch Priority 3 Stream Reclamation (CCB-7.4)
 - a. Description: The design and construction of stream reclamation is in partnership with Castle Rock. Castle Rock is the lead agency. This phase continues the work from the previous phase. Muller Engineering is the design consultant.
 - b. Status: Board authorized IGA for Priority 3 at their May 19,2022 meeting. Muller submitted their 30% deliverable on 10/31/22, review comments were returned on 11/8/22. Easements needed for projects have been identified (1/23/22). The 60% Submittal was received on 1/30/23 and comments have been provided on 2/7/23. Muller is working on updating their construction cost estimate (2/8/23). On 2/23/23, Castle Rock requested that CCBWQA’s 2023 funding be deferred to 2024 to match their schedule.
 - c. Next steps and schedule for 2024:
 - Lead Agency – Castle Rock

Partners – CCBWQA

1. In 1st quarter, Muller completes final design. PAPM reviews 100% submittal, advocates for CCBWQA's interests, and attends review meeting.
 2. Project is broken into 2 phases. Castle Rock is pursuing a grant for the upstream reach, known as the CCC reach.
 3. In 1st and 2nd quarters, PAPM coordinates IGA or Amendment (CCBWQA prepares) to bring in 2024 funding (see row 21 of CIP) and takes it to TAC and Board for their authorization. CCBWQA's 2024 funding of \$1,121,000 consists of \$869,000 in new funding (see CCBWQA's budget) and \$252,000 of transferred left over funds (see notes CCBWQA's CIP and corresponding spreadsheet) from the completed McMurdo Gulch Priority 1 and 2 projects.
 4. In 1st and 2nd quarters, Muller/ERO to obtain 404 permit for project, 404 permit is needed before construction. PAPM monitors 404 permit status, reports, and works with partners to adjust construction schedule as needed.
 5. When construction can start, PAPM reviews construction and engineering support agreements (Castle Rock prepares), coordinates with CCBWQA staff, and works with Administrative Manager on CCBWQA's acknowledgement.
 6. When construction is underway, PAPM provides construction assistance with other partners taking the lead on this work. PAPM attends the pre-construction meeting, progress meetings near 1/3 and 2/3 completion points, and final walk-through/punch list meeting. PAPM advocates for CCBWQA's interests and reports on progress accordingly.
 7. When construction is completed, PAPM prepares Project Summary for inclusion in CCBWQA's 2024 Annual Report.
8. Lone Tree Creek in CCSP downstream of Pond (CCBWQA Only) (CCB-21.1)
- a. Description:
 - b. Status:
 - c. Next steps and schedule for 2024:
Lead Agency – CCBWQA
 1. Stakeholders - CPW
 2. This is a new project for 2024.
 3. In 1st quarter, this project is contingent upon completion of the Master Planning effort by WWE in CCSP. PAPM coordinates with Technical Manager and Executive committee to determine whether this project is ripe and ready to start in 2024.
 4. If project is ready to go, PAPM fills out description line above from information in the 10-year CIP and begins design of project.
9. Lone Tree Creek in Cherry Creek State Park (CCB-21.3)
- a. Description: This project includes a trail connection to Cherry Creek State Park and includes 570 linear feet of stream reclamation on Lone Tree Creek from the State Park Boundary to the Windmill Creek Loop Trail. The City of Centennial is the project lead. CCBWQA participation is for stream reclamation only.
 - b. Status: 95% submittal is under review (5/13/22); review comments have been returned (5/27/22). Project funding was brought to TAC at their 7/7/22 meeting, during drafting of IGA it was discovered that future maintenance of stream

reclamation should be considered, project will be brought back to TAC at an upcoming meeting for maintenance discussion and recommendation (8/12/22). A stakeholder meeting was held on 9/29/22 to discuss maintenance. A stakeholder meeting was held on 11/2/22 to discuss findings from CCBWQA's site visit and findings included in Wright Water Engineers report. The Board supports CCBWQA's partnering with Centennial at their 11/17/22 meeting. A Memo of Understanding is under review by Colorado Parks and Wildlife (CPW) affirming maintenance responsibilities for the stream reclamation fit under the current agreement between CCBWQA and CPW (3/30/23). CCBWQA sent the Draft IGA to Centennial for review on 5/23/23. The project is included in CCBWQA's 2024 Budget and 10-year CIP (11/10/23).

c. Next steps and schedule for 2024:

Lead Agency – Centennial

Partners – CCBWQA

Stakeholders - CPW

1. In 1st quarter, PAMP and Technical Manager coordinate with Centennial on schedule of project.
2. When final design is completed, PAMP reviews 100% submittal, advocates for CCBWQA's interests, and attends review meeting.
3. When project receives approval from USACOE (404 permit and 408 review) and CPW, PAMP coordinates IGA. IGA needs to be finalized (draft has been sent to Centennial) and executed, Board action was previously taken coordinate with Technical Manager and Legal to see if any further action is needed.
4. PAMP provides construction assistance with other partners taking the lead on this work. PAMP attends the pre-construction meeting, progress meetings frequently (higher level of involvement here, as this will be a Pollution Abatement Project/Pollution Reduction Facility maintained by CPW and CCBWQA), and final walk-through/punch list meeting. PAMP advocates for CCBWQA's interests and reports on progress accordingly.
5. When construction is completed, PAMP prepares Project Summary for inclusion in CCBWQA's 2024 Annual Report.

10. Happy Canyon Creek at Jordan Road (SEMSWA) (CCB-22.1)

- a. Description: The design and construction are in partnership with Southeast Metro Stormwater Authority and MHFD and includes 2,500 feet of stream reclamation. The Authority's water quality component share for design and construction is estimated to be \$325,000. The total project cost is estimated at \$1,300,000.
- b. Status: IGA is scheduled for June TAC and Board meetings (5/27/21). IGA has been approved and executed by all parties (7/29/21). Jacobs has been selected as design consultant and project scoping is underway; limits have been extended upstream to the County Line and sediment capture area and transport will be included with the project (10/15/21). Jacobs has submitted their scope of work and fee for design which is under review by project sponsors (11/11/21). Project sponsors have completed a review of Jacobs' fee and scope of work and the agreement is being routed for signatures (1/28/22). IGA Amendment to bring in 2022 funding is in process (3/10/22). A project kickoff meeting was held on 3/28/2022. A site visit was performed on 4/12/22 to document existing conditions and identify sediment source/transport/deposition areas. Project Team is preparing a sampling plan for bank and bed materials to determine phosphorus content (5/13/22). The project team met on 5/24/22 to discuss project goals and Jacobs is progressing

- through the study. Jacobs and ERC are working on sediment transport analysis and model (6/30/22). The results from the sediment transport model were presented at the 8/23/22 progress meeting and an upstream sediment capture area just south of the JWPP was included in the alternatives analysis (8/26/22). The alternative analysis report is expected to be completed before the end of 2022 (10/13/22). Lab results from stream soil samples were sent to Jacobs so that they include phosphorus reduction in the alternatives analysis report; a groundwater investigation is needed to inform sediment capture facility and stream reclamation alternatives, scoping and negotiations are in progress (11/11/22). Groundwater scope of work has been reviewed and approved by project sponsors (1/13/23). The IGA Amendment bringing in the 2023 funding was recommended by TAC and authorized by the Board in April (5/12/23). Progress meeting was held on 10/30/23 where the groundwater information was reviewed and the impacts from the 2023 storms were discussed; MHFD is planning additional sediment removals accordingly.
- c. Next steps and schedule for 2024:
Lead Agency – MHFD
Partners – CCBWQA and SEMSWA
1. In 1st and 2nd quarters, Jacobs completes alternatives analysis and provides initial cost information to incorporate in to CCBWA's and partners' CIPs/budgets. PAMP attends progress meetings and advocates for CCBWQA's interests. PAMP reviews alternatives analysis and attends review meeting.
 2. In 3rd quarter, PAMP coordinates IGA Amendment (MHFD prepares) to bring in 2024 funding (see row 26 of CIP) and takes to TAC and Board for their authorization.
 3. In 3rd and 4th quarters, PAMP coordinates with project partners on requesting and reviewing scope of work and fee from Jacobs for the next level of design.
 4. Funding and design of this project will likely continue into 2025.

11. Happy Canyon Creek - Upstream of I-25 (CCB-22.2)

- a. Description: The design and construction are in partnership with Douglas County, City of Lone Tree, and MHFD and includes 2,500 feet of stream reclamation. The Authority's water quality component share for design and construction is estimated to be \$500,000. The total project cost is estimated at \$2,000,000.
- b. Status: Douglas County, City of Lone Tree, and MHFD have initially funded and selected Muller Engineering as the design engineer. Design has started and a progress meeting was held on 1/27/21. Design is progressing (2/11/21). Muller has submitted 60% Design Deliverables (5/27/21). IGA for 2021 Funding is being brought to Board in September (9/9/21). 2021 IGA Amendment has been executed (11/11/21). Coordination with CDOT and Amendment at their June 16th meeting (6/30/22). The project received environmental clearance from CDOT (8/12/22). The 90% design submittal is scheduled for delivery by end of September (8/26/22). The 90% design submittal is being reviewed (10/13/22). Comments were provided on 90% submittal (11/11/22). Muller completed the 100% design submittal on 11/22/22. CDOT permit was issued, and pre-construction meeting was held on 1/10/23; construction start is scheduled for 1/30/23 pending execution of easement documents from Surrey Ridge which has agreed to terms and easement language. Notice to Proceed on construction is pending execution of easement documents (1/27/23). Easements have been signed by property owners and Notice to Proceed has been issued to Naranjo Civil Constructors (2/8/23). Construction is underway

with initial construction BMPs/stormwater controls in place; water diversion and control is being set up for the downstream section of the project (3/10/23). Water control is in place and construction of stream reclamation is underway for downstream sections of the project (3/30/23). Riffle and Boulder Cascade drop structures on downstream third of project are nearing completion (4/13/23). Construction is underway in the middle third of the project; efforts consist of stream grading and installation of Riffle and Boulder Cascade drop structures (5/12/23). The storm damage from May 11 to 13, 2023 event is being identified and repaired (5/25/23). Construction on the middle third is substantially complete and work has begun on the upstream third (7/27/23). The construction is nearly complete with the punch list walk on 9/13/23; contractor is working on completing plantings and resolving punch list items. Asphalt repairs on the frontage road are being scheduled and some of the plantings will need to be done during the 2024 spring planting window to improve their chance for success (11/10/23). *Asphalt repairs have been made and the project summary has been prepared (12/1/23).*

c. Next steps and schedule for 2024:

Lead Agency – MHFD

Partners – CCBWQA, Douglas County, and Lone Tree

1. Project is substantially complete.
2. In 2nd quarter, MHFD to contract for remaining revegetation items to be installed within spring planting window. PAMP monitors and reports as needed.
3. Until permits are cleared and vegetation established, PAMP coordinates CCBWQA acknowledgement of necessary agreements prepared by MHFD (i.e. weed control, maintenance, supplemental plantings, etc.)
4. After permits are cleared and vegetation established, PAMP and Technical Manager get final accounting from MHFD and refund of any unused balance, if any.

12. Dove Creek - Otero to Chambers Rd. (CCB-23.1)

- a. Description: The design and construction are in partnership with Southeast Metro Stormwater Authority (SEMSWA) and with Mile High Flood District (MHFD) being a key stakeholder; it includes 1,300 feet of stream reclamation. The Authority's water quality component share for design and construction is estimated to be \$175,000. The total project cost is estimated at \$700,000.
- b. Status: SEMSWA is drafting the Intergovernmental Agreement to bring in the 2021 funding for the project (3/12/21). RESPEC is the design consultant; two conceptual design alternatives have been prepared and reviewed during meeting on 3/15/21. IGA is scheduled for CCBWQA's May TAC and Board meetings (4/30/21). IGA has been approved and executed by all parties (7/29/21). 30% Design Review Meeting was held on 8/23/21. A Progress meeting is scheduled for 2/26/22 with 60% Plan submittal expected to follow (1/28/22). The 60% Design was submitted on 2/16/2022, comments were provided, and a design review meeting was held on 2/23/2022. IGA Amendment to bring in 2022 funding is in process (3/10/22). Construction costs were prepared by CEI based on 60% submittal (5/13/22). A design progress meeting was held 6/14/22 and 90% design submittal is being prepared (6/30/22). 90% design submittal is expected by the end of July (7/15/22). The 90% design submittal was reviewed, and comments were submitted on 8/22/22. Construction is anticipated in 2023 (10/13/22). A progress meeting was held on 11/8/22, project will likely be done in 2 phases, IGA Amendment will be needed early in 2023 so that construction can start ahead of storm season. Dove Creek IGA for

construction of Phase 1 is scheduled for TAC and Board in January 2023, construction is expected to start shortly afterwards (12/30/22). Construction is scheduled to start mid-February; construction agreement and engineering construction services amendment are currently being reviewed (1/27/23). Construction and engineering construction services have been finalized and a preconstruction meeting was held on 2/2/23. Notice to Proceed has been issued to Concrete Express; construction is underway with initial construction BMPs/stormwater controls in place (3/10/23). Water control is in place and construction of stream reclamation is on-going (3/30/23). Step pool drop structures have been constructed and work on soil wraps is underway (4/13/23). Low-flow or bank full channel work (soil wraps and erosion control blanket) and step-pool structures are complete, water diversion has been removed, and is active to storm flows; work continues in upland areas and higher elevations of stream reclamation (5/12/23). Storm damage from May 11 to 13, 2023 event is being repaired (5/25/23). Construction punch list is being completed (6/29/23). Construction of Phase 1 is complete (7/27/23). *Project summary has been prepared (12/1/23).*

c. Next steps and schedule for 2024:

Lead Agency – SEMSWA

Partners – CCBWQA

1. Project is substantially complete in 2023.
2. Until permits are cleared and vegetation established, SEMSWA is monitoring and working on clearing GESC permit, which PAMP monitors and reports on as needed. PAMP coordinates CCBWQA acknowledgement of necessary agreements prepared by SEMSWA (i.e. weed control, maintenance, supplemental plantings, etc.).
3. After permits are cleared and vegetation established, PAMP and Technical Manager obtain final accounting from SEMSWA and refund of any unused balance, if any.

13. Dove Creek - Chambers Rd. to Pond D-1 (CCB-23.1)

- a. Description: The design and construction are in partnership with Southeast Metro Stormwater Authority (SEMSWA) and with Mile High Flood District (MHFD) being a key stakeholder; it includes 1,300 feet of stream reclamation. Construction was broken into 2 phases with Phase 2 scheduled for 2024.
- b. Status: CCBWQA acted at their October meeting to advance their funding for Phase 2 Construction to 2023 with SEMSWA's funding scheduled for 2024, IGA has been prepared and scheduled for signatures after SEMSWA's November Board meeting, phosphorus estimates for sediment capture areas for the project were provided to Technical Manager (11/10/23).
- c. Next steps and schedule for 2024:

Lead Agency – SEMSWA

Partners – CCBWQA

1. In 1st quarter, project is scheduled for construction. PAMP reviews construction agreements (SEMSWA prepares), coordinates with CCBWQA staff, and works with Administrative Manager on CCBWQA's acknowledgement.
2. In 1st quarter, PAMP coordinates CCBWQA's acknowledgement of construction and engineering support agreement (SEMSWA prepares). RESPEC provided scope and fee for engineering support during construction and SEMSWA prepared agreement, CCBWQA has

reviewed, returned comments, and Technical Manager was copied to facilitate transition between PAPMs.

3. In 1st and 2nd quarters, PAMP provides construction assistance with other partners taking the lead on this work. PAMP attends, advocates for CCBWQA's interests, and reports progress meetings near 1/3 and 2/3 completion points (minimum level of involvement anticipated).
4. When construction is completed, PAMP prepares Project Summary Report for inclusion in CCBWQA's 2024 Annual Report.

14. Mountain and Lake Loop Shoreline Stabilization Phase II (OM-)

- a. Description: This project was identified through the 2020 annual inspection and design and permitting started in 2021. It adds about 40 feet of shoreline protection where it has eroded leaving a 1-2 foot tall vertical bank.
- b. Status: Construction Plans have been prepared and the GESC was submitted to Arapahoe County for review (1/13/22). Plans are being reviewed by US Army Corps of Engineers for 408 clearance (5/13/22). *Comments were received from the US Army Corps of Engineers on 8/29/23. A meeting has been scheduled for 11/16/23 with USACOE's local staff and CPW staff to discuss the cut and fill balance requirements on this project and other planned projects in Cherry Creek State Park (11/10/23). A site meeting with CPW is being scheduled to determine the feasibility of the project after the 2023 storm damage (12/1/23). The 12/20/23 site meeting with Michelle Seubert identified 2 possible alternatives to address 2023 storm damage and meet USACOE cut and fill requirements while maintaining access to the swim beach. An updated project cost is about \$90,000 which is over the \$65,000 budgeted in 2024 (12/28/23).*
- c. Next steps and schedule for 2024:
 - Lead Agency – CCBWQA
 - Stakeholders – CPW
 1. In 1st quarter, PAMP evaluates and coordinates whether it still makes sense to move forward with this project with the increased cost. The project is estimated to immobilize 5 pounds of phosphorus annually, this equates to a unit cost increase from \$889 to \$1102 per pound of phosphorus immobilized using CCBWQA's method.
 2. If project moves forward, PAMP coordinates contracts with Loewen and ERO for design and permitting support. ERO has submitted a proposal for the environmental permitting, work with Val on work order, cost is above ERO's on-call contract amount for 2024, so it may need additional Board approval. Loewen has submitted a rough scope of work and estimate for evaluation of alternatives and revised design, PAMP facilitates contracting for CCBWQA including any approvals (need TAC and Board?). PAMP reviews scope of works, assists consultants through design and permitting, coordinates 408 review including preparation of project summary letter on behalf of CCBWQA to USACOE and CPW. PAMP coordinates support letter from CPW (Michelle Seubert).
 5. If project moves forward, PAMP assists CCBWQA in contracting, helps to determine whether a direct selection of contractor can be done or whether it needs to go to public bid, and gets TAC and Board authorization, if needed. If public bid is required, then PAMP coordinate with CCBWQA's Administrative Manager on bid process.
 6. If project moves to construction, PAMP assists CCBWQA with construction observation.

7. If project completes construction, PAMP to prepare project summary for inclusion in CCBWQA's 2023 annual report.